

#### UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS PO. Box 1450 Alexandra, Virginia 22313-1450 www.unpto.gov

#### NOTICE OF ALLOWANCE AND FEE(S) DUE

7590

06/23/2003

William C Fuess Fuess & Davidenas 10951 Sorrento Valley Road Suite II-G San Diego, CA 92121-1613 EXAMINER

RAMPURIA, SHARAD K

ART UNIT CLASS-SUBCLASS

455-250100

2683

DATE MAILED: 06/23/2003

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/595,508	06/14/2000	Lawrence Larson	UCSD 99-116	8936

TITLE OF INVENTION: S-BAND LOW-NOISE AMPLIFIER WITH SELF-ADJUSTING BIAS FOR IMPROVED POWER CONSUMPTION AND DYNAMIC RANGE IN A MOBILE ENVIRONMENT

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$650	\$0	\$650	09/23/2003

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. <u>PROSECUTION ON THE MERITS IS CLOSED</u>. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above

B. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
- B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.
  - Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.



### PART B - FEE(S) TRANSMITTAL

# Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents Alexandria, Virginia 22313-1450 Fax (703)746-4000

maintenance fee notification	iS.				required). Blocks 1 through 4 s res will be mailed to the current ress; and/or (b) indicating a sepa	
	E ADDRESS (Note: Legibly mar 90 06/23/2003	k-up with any corrections or use l	Block 1)	Fee(s) Transmi	ate of mailing can only be used for ttal. This certificate cannot papers. Each additional paper, s must have its own certificate of n	be used for any other such as an assignment or
Fuess & Davidenas 10951 Sorrento Va Suite II-G San Diego, CA 921	lley Road			I hereby certify United States Po envelope address	Certificate of Mailing or Trans that this Fee(s) Transmittal is stal Service with sufficient postay sed to the Box Issue Fee address e USPTO, on the date indicated b	smission being deposited with the ge for first class mail in an above, or being facsimile
						(Depositor's name)
						(Signature)
						(Date)
APPLICATION NO.	FILING DATE	FIRS	ST NAMED INVEN	ror	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/595,508	06/14/2000	<u> </u>	Lawrence Larson		UCSD 99-116	8936
APPLN. TYPE nonprovisional	SMALL ENTITY YES	ISSUE FEE	PUBLI	CATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisionar	1 23	2030		20	2020	09/23/2003
EXAMIN	IER .	ART UNIT	CLASS-SUBCI	ASS ·		
RAMPURIA, S	HARAD K	2683	455-25010			
1. Change of correspondent CFR 1.363).  U Change of correspondent Address form PTO/SB/12  U "Fee Address" indicating PTO/SB/47; Rev 03-02 of Number is required.	nce address (or Change of 2) attached. on (or "Fee Address" Indigramore recent) attached.	of Correspondence cation form Use of a Customer	the names of u or agents OR, single firm (ha attorney or age registered paten is listed, no nam	on the patent from to to 3 registered palternatively, (2) ving as a member ont) and the name trattorneys or ager e will be printed.	the name of a er a registered es of up to 2	
3. ASSIGNEE NAME AND PLEASE NOTE: Unless as been previously submitted (A) NAME OF ASSIGNER	n assignee is identified be to the USPTO or is being	elow, no assignee data w submitted under separate	ill appear on the p cover. Completion	atent Inclusion of	f assignee data is only appropriat OT a substitute for filing an assig COUNTRY)	e when an assignment has nument.
Please check the appropriate		·		⊔ individual	Corporation or other private gr	oup entity U government
4a. The following fee(s) are	enclosed:	•	ment of Fee(s):	.64 6 ()		
☐ Issue Fee				of the fee(s) is end I. Form PTO-2038		
— : dolletter i ce			•		by charge the required fee(s), or c	redit any overpayment, to
·		Deposi	t Account Number		(enclose an extra copy of this i	form).
(Authorized Signature)		(Date)				
NOTE; The Issue Fee and other than the applicant; a interest as shown by the rec	registered attorney or cords of the United States	agent; or the assignee o Patent and Trademark Of	r other party in ffice.			
This collection of informal obtain or retain a benefit happlication. Confidentiality estimated to take 12 minut completed application for case. Any comments on suggestions for reducing the Patent and Trademark C 22313-1450. DO NOT SI SEND TO: Commissioner and Under the Paperwork Rec	to the USPTO. Time of the amount of time you his burden, should be ser the END FEES OR COMPI for Patents, Alexandria, Valuction Act of 1995, not the total services and the services of the total serv	gathering, preparing, awill vary depending upon require to complete that to the Chief Informatic of Commerce, Alexa LETED FORMS TO The Triginia 22313-1450.	n the individual his form and/or on Officer, U.S. andria, Virginia HIS ADDRESS.			
collection of information ur	uess it displays a valid O	MB control number.				



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UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address COMMISSIONER FOR PATENTS P.O. BOX 1450 Alexandria, Virginia 22313-1450 www.napto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/595,508	06/14/2000	Lawrence Larson	UCSD 99-116	8936
. 75	590 06/23/2003		EXAMIN	ER
William C Fuess	•		RAMPURIA, S	HARAD K
Fuess & Davidenas 10951 Sorrento Va			ART UNIT	PAPER NUMBER
Suite II-G	•		2683	X
San Diego, CA 92121-1613			DATE MAILED: 06/23/2003	O

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The patent term adjustment to date is 225 days. If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the term adjustment will be 225 days.

If a continued prosecution application (CPA) was filed in the above-identified application, the filing date that determines patent term adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system. (http://pair.uspto.gov)

Any questions regarding the patent term extension or adjustment determination should be directed to the Office of Patent Legal Administration at (703)305-1383.



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09/595,508	06/14/2000	Lawrence Larson	UCSD 99-116 8936	
75	90 06/23/2003		EXAMIN	ER
William C Fuess			RAMPURIA, SI	HARAD K
Fuess & Davidenas				
10951 Sorrento Val	lley Road	•	ART UNIT	PAPER NUMBER
Suite II-G			2683	
San Diego, CA 921	21-1613			
<b>UNITED STATES</b>			DATE MAILED: 06/23/2003	

#### Notice of Fee Increase on January 1, 2003

If a reply to a "Notice of Allowance and Fee(s) Due" is filed in the Office on or after January 1, 2003, then the amount due will be higher than that set forth in the "Notice of Allowance and Fee(s) Due" since there will be an increase in fees effective on January 1, 2003. See Revision of Patent and Trademark Fees for Fiscal Year 2003; Final Rule, 67 Fed. Reg. 70847, 70849 (November 27, 2002).

The current fee schedule is accessible from: http://www.uspto.gov/main/howtofees.htm.

If the issue fee paid is the amount shown on the "Notice of Allowance and Fee(s) Due," but not the correct amount in view of the fee increase, a "Notice to Pay Balance of Issue Fee" will be mailed to applicant. In order to avoid processing delays associated with mailing of a "Notice to Pay Balance of Issue Fee," if the response to the Notice of Allowance and Fee(s) due form is to be filed on or after January 1, 2003 (or mailed with a certificate of mailing on or after January 1, 2003), the issue fee paid should be the fee that is required at the time the fee is paid. If the issue fee was previously paid, and the response to the "Notice of Allowance and Fee(s) Due" includes a request to apply a previously-paid issue fee to the issue fee now due, then the difference between the issue fee amount at the time the response is filed and the previously paid issue fee should be paid. See Manual of Patent Examining Procedure, Section 1308.01 (Eighth Edition, August 2001).

Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

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	Application No.	Applicant(s)
	09/595,508	LARSON ET AL.
Notice of Allowability	Examiner	Art Unit
	Sharad Damanusia	2692
	Sharad Rampuria	2683
The MAILING DATE of this communication apperature All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RI of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in this app or other appropriate communication GHTS. This application is subject to	olication. If not included will be mailed in due course. <b>THIS</b>
1. This communication is responsive to 4/24/2003.		
2. The allowed claim(s) is/are 1-11 and 16.		
3. The drawings filed on are accepted by the Examine	r.	
<ul><li>4. ☐ Acknowledgment is made of a claim for foreign priority unc</li><li>a) ☐ All b) ☐ Some* c) ☐ None of the:</li></ul>	ler 35 U.S.C. § 119(a)-(d) or (f).	
<ol> <li>Certified copies of the priority documents have</li> </ol>	been received.	
<ol><li>Certified copies of the priority documents have</li></ol>	been received in Application No	·
<ol><li>Copies of the certified copies of the priority do</li></ol>	cuments have been received in this i	national stage application from the
International Bureau (PCT Rule 17.2(a)).		
* Certified copies not received:		
5. Acknowledgment is made of a claim for domestic priority up		onal application).
<ul><li>(a) ☐ The translation of the foreign language provisional a</li><li>6. ☐ Acknowledgment is made of a claim for domestic priority units.</li></ul>	• •	
o. Mackinowledgment is made of a claim for domestic priority di	ilder 33 0.3.0. 99 120 and/or 121.	
Applicant has THREE MONTHS FROM THE "MAILING DATE" of below. Failure to timely comply will result in ABANDONMENT of		
7. A SUBSTITUTE OATH OR DECLARATION must be submINFORMAL PATENT APPLICATION (PTO-152) which gives reas		
<ul> <li>8.  ☐ CORRECTED DRAWINGS must be submitted.</li> <li>(a) ☐ including changes required by the Notice of Draftspers</li> <li>1) ☐ hereto or 2) ☐ to Paper No</li> </ul>	son's Patent Drawing Review ( PTO	-948) attached
(b) ☐ including changes required by the proposed drawing of	correction filed, which has be	een approved by the Examiner.
(c) including changes required by the attached Examiner	's Amendment / Comment or in the C	Office action of Paper No
Identifying indicia such as the application number (see 37 CFR 1 each sheet.	.84(c)) should be written on the drawin	gs in the front (not the back) of
9.   DEPOSIT OF and/or INFORMATION about the depo attached Examiner's comment regarding REQUIREMENT FOR T		
Attachment(s)		
1⊠ Notice of References Cited (PTO-892) 3⊠ Notice of Draftperson's Patent Drawing Review (PTO-948) 5□ Information Disclosure Statements (PTO-1449), Paper No 7□ Examiner's Comment Regarding Requirement for Deposit of Biological Material	4☐ Interview Summa 6☐ Examiner's Ame	al Patent Application (PTO-152) ary (PTO-413), Paper No  ndment/Comment ement of Reasons for Allowance

Application/Control Number: 09/595,508

Art Unit: 2683

#### Allowable Subject Matter

Claims 1-11, & 16 are allowed.

The following is an examiner's statement of reasons for allowance:

Claims 1-11, & 16 are allowed based on Beur et al., Tham, Aihara, Fujita, Winslow, Cox et al., Miyazawa, Russell et al., Gentzler et al.

1. Regarding independent claims 1, 3, & 16, Beur et al., Tham, Aihara, Fujita, Winslow, Cox et al., Miyazawa, Russell et al., Gentzler et al. fails to disclose monitoring the amplified output of the class A amplifier; and, in response to detecting an increase in the amplifier output, dynamically biasing the load line of the amplifier to a higher d. c. bias point, causing the amplifier to consume more power and to produce a still larger amplified output signal, nonetheless to maintaining operation of the amplifier always in class A, and an increase in amplifier output signal is indicative of a presence of a strong jammer component in the amplifier input signal, so that moving the load line of the amplifier will cause the amplifier to draw more current beneficially decreasing a noise figure while increasing gain of the amplifier, and causing the amplifier to reach a new steady state with higher power and improved linearity. Wherein when no increase in amplifier output signal is detected, indicative that no strong jammer component is present within the amplifier input signal, then neither the d.c. bias, nor the load line, will be raised, and the amplifier will operate quiescently, conserving power. And also wherein when the a.c. signal is not zero then the detector circuit output is equal to a sum of (i) the reference voltage, and (ii) a voltage of an envelope of the a.c. signal, which voltage of the envelope of the a.c. signal is equivalent to the power of the a.c. signal.

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Application/Control Number: 09/595,508

Art Unit: 2683

Therefore, the claims 1,3, & 16 are allowed.

Since claims 2, & 4-11, are dependent claims, therefore they are also allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharad Rampuria whose telephone number is 703-308-4736. The examiner can normally be reached on Mon-Thu. (6:30-4:00) alternate Fri. (6:30-3:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 703-308-5318. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

Sharad k. Rampuria June 17, 2003 WILLIAM TROST SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 2600